



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,002	03/26/2004	Stephen Vacarezza	H0004532	9025
7590	03/06/2006		EXAMINER WHITE, DWAYNE J	
Ephraim Starr Division General Counsel Honeywell International Inc. 23326 Hawthorne Boulevard, Suite #200 Torrance, CA 90505			ART UNIT	PAPER NUMBER
			3745	

DATE MAILED: 03/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

Office Action Summary	Application No. 10/811,002	Applicant(s) VACAREZZA ET AL.	
	Examiner Dwayne J. White	Art Unit 3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-14 and 18-25 is/are allowed.
- 6) ☒ Claim(s) 15-17 is/are rejected.
- 7) ☒ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Response to Arguments/Amendment***

The amendment filed 6 January 2006 has been fully considered. Claims 1-25 are pending. Applicant's arguments in regards to the 102 and 103 rejections in view of Joco (4,944,660) have been deemed persuasive and the rejections withdrawn. In regards to claims 1, 3, 6, 12 and 13 being rejected under 35 USC 102(e), it is the position of the Examiner that, while the wherein statement in claims 1 and 13 is functional language, Heyes et al. would not be capable of performing the claimed function. The rejection has thus been withdrawn. In regards to claims 15-17 being rejected under 35 USC 103(a), Applicant generally states that Norton et al. teaches away from having a boreless compressor wheel. While the Examiner acknowledges that assertion, the Examiner respectfully disagrees with the conclusion that the combinations made were improper. Since the Examiner is relying on the teaching of cold working the internal circumference of a bore of a compressor wheel and not relying on Norton et al. teaching a boreless compressor wheel, it is the position of the Examiner that there is sufficient reason to combine the treatment technique as stated in the prior Office Action. Simply teaching away from a boreless compressor wheel does not negate the use of the technique.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joco in view of Norton et al. (6,146,931). Joco discloses all of the claimed subject matter, including the boreless compressor wheel further comprising a shaft inserted into the joint, except the joint being treated by a cold working process.

Norton et al. teaches treating the inner circumference of the bore of a compressor wheel by any conventional cold working process, which includes shot peening. Since it is well known in the art that cold working minimizes surface defects that would normally be present in joint (Column 3, line 3 to Column 4 line 5), it would have been obvious at the time the invention was made to one of ordinary skill in the art to treat the joint of Joco as taught by Norton et al. for the purpose of reducing fatigue in the joint. In regards to claim 10, since the shield has an opening at its proximal and distal ends for inserting a shaft it is the position of the Examiner that this opening can serve to allow cold working material to exit the passage. In regards to claim 16, the surface where the shield is placed is not treated by the cold working process.

Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heyes et al. in view of Norton et al. Heyes et al. disclose all of the claimed subject matter stated above, including a shaft being inserted into the joint, except for the joint being treated by a cold working process.

Norton et al. teaches treating the inner circumference of the bore of a compressor wheel by any conventional cold working process, which includes shot peening. Since it is well known in the art that cold working minimizes surface defects that would normally be present in joint (Column 3, line 3 to Column 4 line 5), it would have been obvious at the time the invention was made to one of ordinary skill in the art to treat the joint of Heyes et al. as taught by Norton et al.

Art Unit: 3745

for the purpose of reducing fatigue in the joint. In regards to claim 7, since the shield covers the entire inner circumference of the joint except the end portion, it is the position of the Examiner that material entering the passage during cold working would be prevented from contacting the pilot surface of the joint of the compressor wheel. In regards to claim 10, since the shield has an opening at its proximal and distal ends for inserting a shaft it is the position of the Examiner that this opening can serve to allow cold working material to exit the passage. In regards to claim 16, the joint surface where the shield is placed is not treated by the cold working process.

CONCLUSION

Allowable Subject Matter

Claims 1-14 and 18-25 are allowed.

Contact Information

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

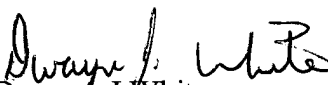
Art Unit: 3745

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dwayne J. White whose telephone number is (571) 272-4825. The examiner can normally be reached on 7:00 am to 4 pm T-F and alternate Mondays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look can be reached on (571) 272-4820. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Dwayne J White
Patent Examiner
Art Unit 3745

DJW


EDWARD K. LOOK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700

3/2/06